

October 10, 2008

DEPT. OF TRANSPORTATION
DOCKETS

The Honorable David Kelly
Administrator
U.S. Department of Transportation
National Highway Traffic Safety Administration
1200 New Jersey Ave, S.E.
Washington, D.C. 20590

Re: Petition for Rulemaking to Amend FMVSS No.108 - Lamps, Reflective Devices and Associated Equipment -Section 10.17.1

Dear Mr. Kelly:

BMW of North America, LLC (a subsidiary of BMW AG of Munich, Germany), pursuant to 49 CFR Part 552.3(a), submits the following petition to amend FMVSS 108.

We are requesting the National Highway Traffic Safety Administration to amend the design requirement of Federal Motor Vehicle Safety Standard (FMVSS) 108 regarding the installation requirements for a motorcycle headlamp. Given that FMVSS 108 has recently been reorganized, to avoid confusion, all references regarding FMVSS 108 are made with respect to the reorganized version of 108 and respective numbering.

The purpose for this petition is to harmonize this requirement for motorcycles with the European Communities (ECE) regulation No. 53 by updating the installation requirements to be based on the "axis of reference", rather than, the physical filament(s) in the headlamps.

In the reorganized version of FMVSS 108 the motorcycle headlamp installation requirements are contained under paragraph S10.17 *Motorcycle Headlighting Systems* as follows:

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S10.17.1 Installation. The headlighting system installed on a motorcycle must consist of one of the system types specified in this paragraph, and must be located on the front.

S10.17.1.1 Single headlamp

S10.17.1.1.1 If the system consists of a single headlamp, it must be mounted on the vertical centerline of the motorcycle.

S10.17.1.1.2 If the headlamp contains more than one light source, each light source must be mounted on the vertical centerline with the upper beam no higher than the lower beam, or horizontally disposed about the vertical centerline and mounted at the same height.

S10.17.1.1.3. If the light sources are horizontally disposed about the vertical centerline, the distance between the closest edges of the effective projected luminous lens area in front of the light sources shall not be greater than 200 mm.



The ECE regulation No. 53 refers to a so called "centre of reference" combined with an "axis of reference" for the motorcycle head lamp location requirements.

"Axis of reference" (or "reference axis") means the characteristic axis of the lamp determined by the manufacturer (of the lamp) for use as the direction of reference ($H = 0^\circ$, $V = 0^\circ$) for angles of field for photometric measurements and for installing the lamp on the vehicle;

"Centre of reference" means the intersection of the axis of reference with the exterior light-emitting surface; it is specified by the manufacturer of the lamp;

When using modern, state-of the-art asymmetrical reflectors, the centre of reference is, because of the reflector surface, slightly differently located compared to the original light source. The centre of reference is the basis for all photometric measurements, which are required by the ECE regulations. These reference points are marked on the lens in accordance to Part 571.108 paragraph S10.18.5 (see attached illustration).

Part 571.108 paragraph S4. Definitions also refers to an axis or reference:

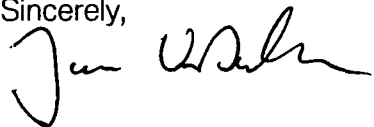
"Axis of reference" means the characteristic axis of the lamp for use as the direction of reference ($H = 0^\circ$, $V = 0^\circ$) for angles of field for photometric measurements and for installing the lamp on the vehicle."

BMW would like to have Part 571.108 modified such that the axis of reference is used as the basis for the installation requirement, rather than, the center of the light source in the current American regulations. Our proposed language is as follows:

*S10.17.1.1.2 If the headlamp contains more than one light source, each **axis of reference** light source must be **located** mounted on the vertical centerline with the upper beam no higher than the lower beam, or horizontally disposed about the vertical centerline and **located** mounted at the same height.*

These recommended revisions to harmonize FMVSS 108 with ECE Regulation No. 53 will have no negative impact on traffic safety.

Sincerely,



Jan Urbahn
Manager
Safety Engineering and Intelligent Transportation Systems

Attachment





Real light sources/ centers of reference

